

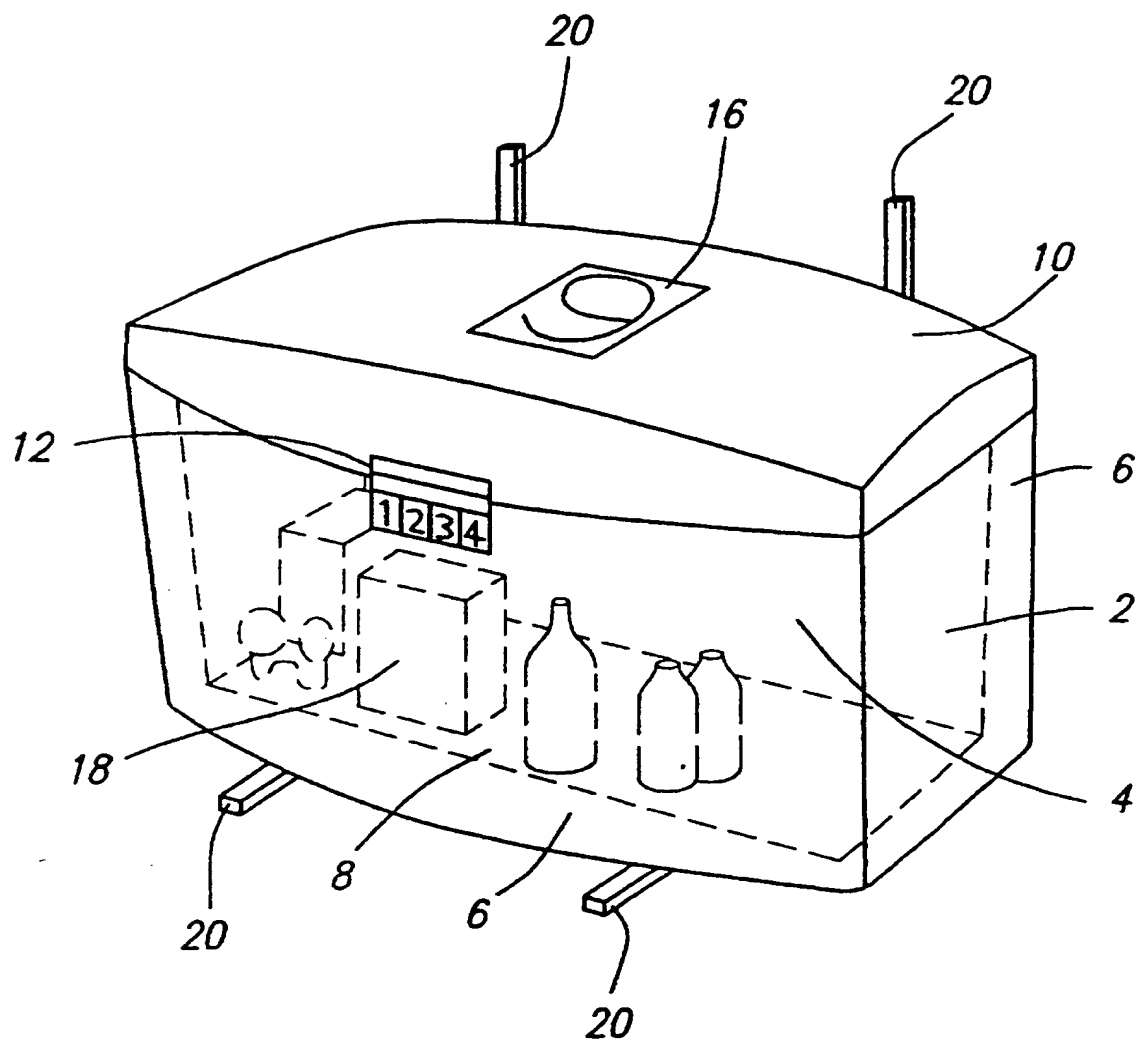
FIG. 1

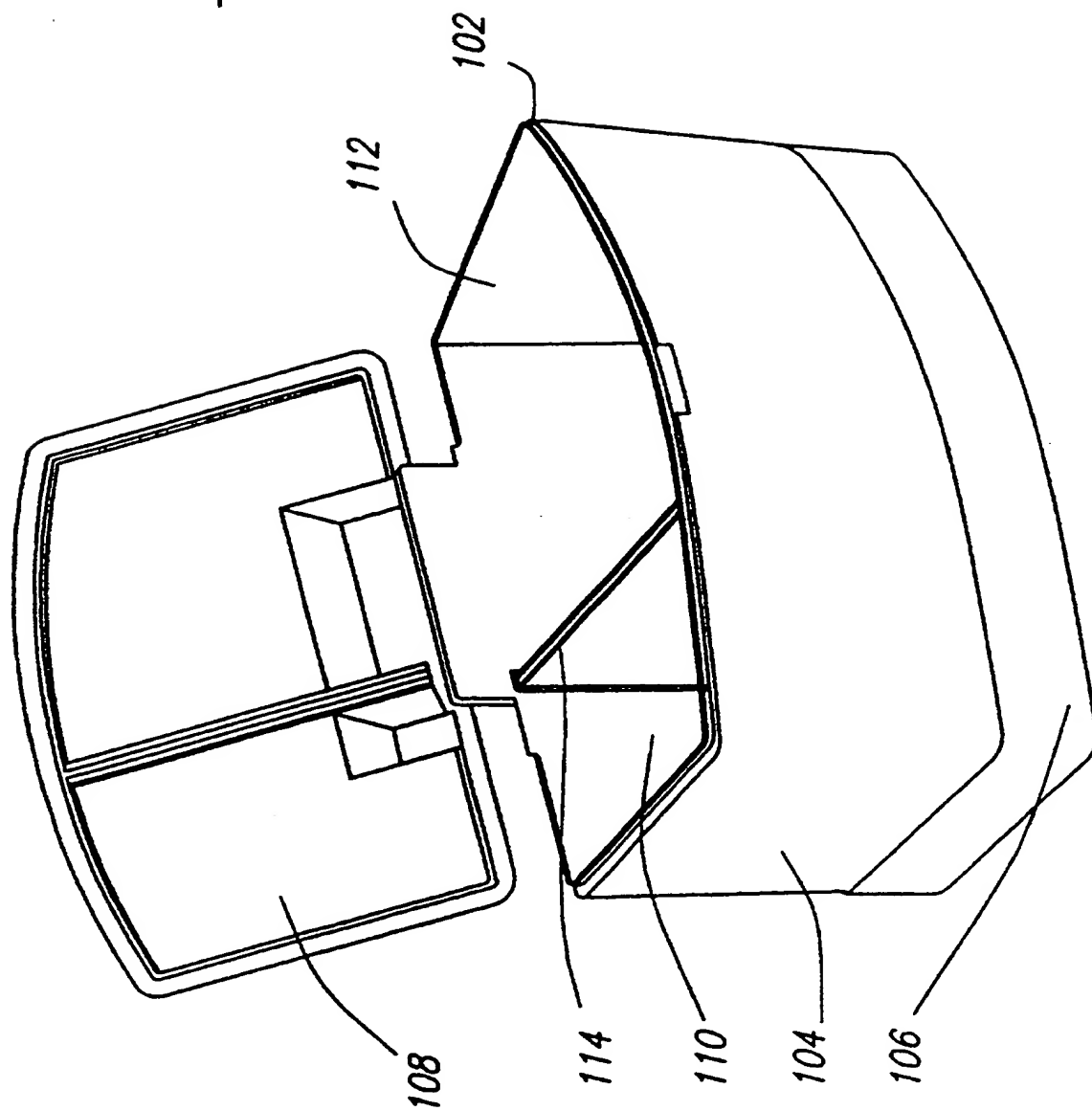
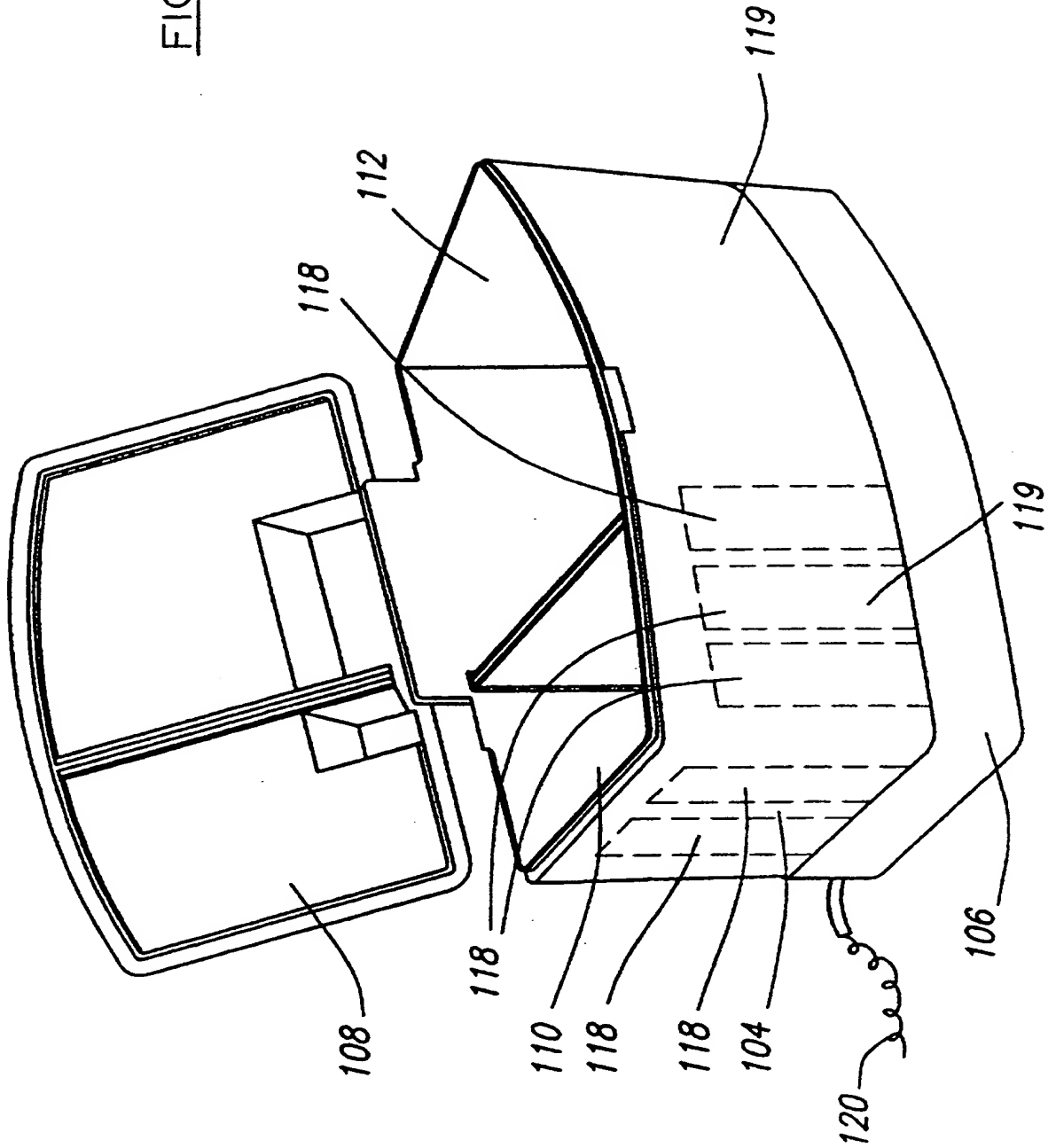
FIG. 2

FIG. 3



Container for Goods

The invention which is the subject of this application relates to a container for use in containing goods securely and, if necessary preserving the condition of the goods for a period of time once placed in the container.

The invention is particularly, but not exclusively, for use in receiving delivered goods at the recipients premises and for allowing said goods to be securely held at or in the vicinity of the premises until the recipient is able to be present to receive the goods.

At the present time the delivery of parcels, mail and catalogue goods at premises is well known and, typically, if, when the goods are delivered, the intended recipient is not present, the goods will be left in a non-obvious place or left with persons in adjacent premises. While this system is in itself unsatisfactory given the risk of theft of the goods, the risk has had to be accepted as unavoidable. However, there is a new development in the home delivery of consumer goods such as foodstuffs, clothes and the like from retail premises such as supermarkets. As some of these goods may be perishable and/or frozen or require to be chilled and/or of significant value, leaving the goods in a safe place or with person in neighbouring premises is not a viable option. As a result at the present time the delivery services of these goods are required to be operated within a relatively narrow band of time, say early evening, when most recipients are likely to be in the premises. This makes the delivery process expensive to operate as the deliveries cannot be

spaced throughout the day, the employees may be required to be paid more for working different hours, and the recipients are disturbed and/or may be concerned by having persons at their door in the evening.

The aim of the present invention is to provide a means which allows for the storage of delivered goods in a secure condition while awaiting removal by the recipient of said goods. Furthermore it is an aim to provide the means in a form whereby the goods which are held can be retained in a condition to prevent damage to said goods.

In a first aspect of the invention there is provided a storage container for receipt of delivered goods, said storage container provided with a securing means and accessible by the deliverer of said goods to allow the goods to be placed into the container and by the intended recipient to allow removal of said goods.

In one embodiment the container is provided to be locatable adjacent a premises and therefore can withstand typical weather conditions. In one form of the invention the container is provided to be free standing and can be secured directly to a base or via other securing means to an object to prevent the container from being easily removable from the premises. In another form the container can be wall mounted via brackets which are hidden when the container is closed so as to prevent tampering with the same.

In an alternative embodiment the container is provided as an integral part of the premises and in one example may be accessible

from one side external of the premises by the person delivering the goods and from the opposing side within the premises by the recipient.

In one embodiment the container is provided with securing means in the form of a combination lock, which combination can be selected by the recipient of the goods and informed to the goods supplier. Alternatively the securing means can be a lock which is powered and releasable by the use of a magnetic coded card with the recipient having a card for use only with their container and the deliverer having a master card to allow release of a plurality of said container locks. In one further embodiment the magnetic coded card used could also act as a loyalty card of the type currently issued by major retailers to their customers.

In whichever embodiment, it is preferred that the securing means be simple to operate thereby allowing use by old and/or disabled persons and should be easily viewable and accessible to allow the same to be operated in poor light or at night.

The container may also be provided in one embodiment with a port which allows goods such as for example, larger parcels which cannot pass through conventional letterboxes, to be inserted into the container without the need for access to be gained into the container. This would allow the container to be used to receive deliveries from organisations who would not have the required means to open the securing means for the container.

In one use, the container is provided for the receipt of deliveries of consumables such as foodstuffs and the like. In this use the container can be provided in a range of sizes with the appropriate size selected by the recipient of the goods and will typically be equivalent to the volume of foodstuffs which they may order and consume, say, each week. Thus, for example, one form of the container could be of a size equivalent to that of a shopping trolley. In one embodiment the access to the container will be at a similar height to a shopping trolley.

Many foodstuffs are required to be held in frozen condition and/or chilled and in one embodiment the container is formed with thermally insulated walls and preferably lid and base, so that the goods can be held in the required condition for a practical period of time during which it would reasonably be expected that the recipient would return to remove the goods from the container.

In a further aspect of the invention there is provided a container for use in or adjacent a premises for the receipt and storage of goods, said container accessible by the person delivering the goods to the same and the recipient of the goods and characterised in that the container includes cooling means which can be used in conjunction with or independently of insulated walls to the container to allow frozen or chilled goods to be stored for a period of time in at least a portion of the container without deterioration to the condition of said goods.

Thus, in one embodiment, there are provided a number of elements or other cooling system components within the walls and/or lids of the container which provide a cooling or even freezing effect on articles within the container.

In one embodiment, the cooling components are electrically powered and there is provided a power source within the container which could be for example battery powered, or alternatively there is provided a means for the connection of the container to an external power source such as an electricity supply. It should be appreciated that the container may be separated into compartments so that only one of the compartments is provided with the said freezing or cooling effect components. Thus, with this aspect of the invention, goods such as foodstuffs can be kept and maintained in a condition within the container when stored therein so that the condition of the same does not deteriorate or cause damage to the foodstuffs.

In a further aspect of the invention the container is provided a container for use in or adjacent a premises for the receipt and storage of goods, said container accessible by the person delivering the goods to the same and the recipient of the goods and characterised in that the container has defined therein a number of compartments to allow goods to be kept separate and/or in separate conditions as required.

One example of the use of the container in this form is if it is required that foodstuffs which are frozen or chilled be kept

separately to other foodstuffs such as fruit so as to prevent deterioration in the fruit due to exposure to the chilled or frozen foodstuffs and so it will be appreciated that the foodstuffs to be stored in the container can be placed in the appropriate compartments defined therein.

In one preferred embodiment, one of the compartments will be provided with cooling or even freezing means to allow chilled or frozen foods to be stored therein. In one preferred embodiment the compartments are defined by inner walls and preferably the lid to the container is provided with protrusions which contact with the position of the inner walls so as to form a sealed definition of the compartments when the lid is put in position.

It will also be appreciated that the consumption of types of foodstuffs varies from household to household and so, in one embodiment of the invention it is envisaged that it will be possible for the inner walls which define the compartments to be moved within the container so as to define compartments of appropriate size for the use of that container for foodstuff storage. In one embodiment, the inner wall or walls will be movable to any position within the container or, alternatively, the inner wall or walls will be moved between a plurality of defined positions to provide compartments of different sizes. In this embodiment, the provision of the freezing or chilling components may be provided so that certain of the components can be selectively operated depending on the size of compartment defined by the inner walls at that instant.

As the container, in one embodiment is required to receive foodstuffs, the interior of the same is required to be kept in a hygienic state and so the container can be formed with drainage means to allow the interior of the container to be washed.

In one form each container is identifiable by means of a name tag or number or the like. However in another form and in particular for blocks of flats, halls of residence and the like, where a number of said containers would be difficult to manage properly, there may be provided one communal container, said container including therein a number of compartments, each of the compartments allocated to, and accessible by, a particular resident of the premises.

Specific embodiments of the invention is now described with reference to the accompanying drawings;

Figure 1 illustrates a container according to one embodiment of the invention;

Figure 2 illustrates a container according to the invention in another embodiment with inner compartments defined therein; and

Figure 3 illustrates a container according to the invention with freezing or chilling components and a power source provided therefor.

Referring now to Figure 1 there is shown a container 2 according to one embodiment of the invention. The container is provided with an interior cavity 4 defined by side walls 6 and base 8 and which can be closed by lid 10. The lid 10 can be held in a secured closed position via securing means 12 which, in the form shown, are a combination lock. The container is also provided with a sign 16 which can be adapted to allow the recipient of goods to identify their own container. The walls, base and lid of the container can be thermally insulated so that goods 18, illustrated in broken lines, held in the cavity 4 are prevented from perishing or damage.

The container in this case is attached to the wall of the house of the recipient of the goods via brackets 20 and the securing means of the brackets to the wall 21 and the container 2 are not accessible when the container is closed. In an alternative embodiment the container can be provided as an integral part of the premises, built, for example as part of a wall with access to the exterior which can be opened by the person delivering the goods, and access on the interior of the premises to allow the delivered goods to be removed by the recipient in the premises upon return to the premises.

Referring now to Figure 2, there is illustrated a container 102 in a further embodiment for the storage of foodstuffs. The container has outer walls 104, base 106 and lid 108 and is provided with a series of inner compartments 110, 112 which are defined by the inner wall 114. Each of said inner compartments is provided with a drainage aperture (not shown) to allow the drainage of any excess fluids which may come from foodstuffs held within the compartments for

storage. The provision of the separate inner compartments is to allow the storage of foodstuffs in separate compartments so as to prevent cross contamination or damage between foodstuffs due to their different conditions. In one embodiment the separation of frozen and fresh products can be achieved.

The inner wall 114 can be moved to define compartments 110', 112' of different dimensions and so it will be appreciated that the size of the inner compartments can be adjusted either between a range of fixed positions and sizes or to any required size by the user of the container in accordance with their consumption of foodstuffs of certain types.

Figure 3 illustrates a further embodiment of the invention wherein there is provided, in this embodiment, within the walls adjacent the location of at least one of the inner compartments, freezing or chilling component means to provide a freezing or chilling system and these are shown in broken lines 118. The freezing or chilling system can be of any conventional type and is incorporated in the walls of the container so as to allow foodstuffs which may be frozen or chilled when put into the container to be maintained in that condition during storage for a period of time until they are collected and removed. In the embodiment shown, the container is provided with a connection 120 to a power supply means (not shown) which allows the freezing or chilling system to be powered when foodstuffs are held therein. Furthermore, when used in conjunction with the arrangement of Figure 2 whereby the size of the compartments within the container can be adjusted, the system

for freezing or chilling may comprise a series of mini systems 119, which can be selected to be operable or not, dependant on the size of the compartment. Thus, if the compartment defined in which frozen or chilled foods is to be kept is relatively large then all of the mini systems 119 for freezing or chilling will be operational whereas if the compartment defined is relatively small then only some of the mini systems will be operational so as to prevent a freezing or chilling effect on the other compartment or compartments defined.

In use, a customer of, for example, a supermarket retailer, can order goods via a home shopping service, and so could, for example, purchase their week's shopping. The supermarket may request whether morning, afternoon or evening deliveries are most suitable but, as the customer has a container according to the invention, the supermarket can use any preference indicated by the customer as a guide rather than as a restriction as to when they can deliver the goods. By using the containers according to the invention the supermarket can schedule their delivery vehicles and personnel to make deliveries of goods throughout the day and even night as it is not necessary for the customer recipient to be present and/or awake at the time of delivery at their premises as the delivered goods are left securely in the container.

The delivery of the ordered goods which need not necessarily be foodstuffs, to the customer is made by the delivery person gaining access to the container at the premises by releasing the securing means using, for example, a combination code which may be known to the delivery person as a common code or may have been

provided by the customer at the time of order or may be provided on the customer's records at the retailers.

With the container open, the goods are placed into the container, in the appropriate compartments if provided, and the lid returned to a closed position and secured. As the container is thermally insulated and/or self cooling or chilling, the goods can be held in the required condition until the customer returns or wakes up and removes the goods by entering the required combination code to gain access to remove the goods.

Although the invention is believed to be of particular relevance to the delivery of foodstuffs it will be appreciated that the invention is of advantage to the home delivery of any type of goods which can be left in a container. The advantages of allowing more efficient delivery scheduling and also allowing the recipient not to be required to be present at the time of delivery are of significant benefit both to the retailer and consumer.

The invention according to this application allows the recipient of goods to be satisfied that any goods which are delivered to their premises in their absence can be stored securely and the condition of same retained. Furthermore the ability to provide secure containers allows the organisation of the delivery of goods to be more accurately and efficiently organised and allows the same to be spread over a 12 or even 24 hour period thereby allowing more efficient use of vehicles, possibly a reduction of vehicles in

comparison to current requirements, and the factor of recipient defined delivery times to be removed.

Claims

- 1 A storage container (2;102) for receipt of delivered goods characterised in that said storage container is provided with a securing means (12) and accessible by the deliverer of said goods to allow the goods to be placed into the container, and by the intended recipient to allow removal of said goods.
2. A storage container according to claim 1 characterised in that the container (2;102) is provided to be locatable adjacent a premises.
3. A storage container according to claim 2 characterised in that the container (2;102) is free standing and can be secured directly to a base or via other securing means to an object to prevent the container from being easily removable from the premises.
4. A storage container according to claim 2 characterised in that the container can be wall mounted via brackets (20) which are secured when the container is closed so as to prevent tampering with the same.
- 5 A storage container according to claim 1 characterised in that the container (2;102) is provided as an integral part of the premises.
6. A storage container according to claim 5 characterised in that the container (2;102) is accessible from one side external of the premises by the person delivering the goods and from the opposing side within the premises by the recipient.

7 A storage container according to claim 1 characterised in that the container is provided with securing means (12) in the form of a combination lock, which combination can be selected by the recipient of the goods and informed to the goods supplier.

8. A storage container according to claim 1 characterised in that the container (2;102) is provided with a securing means in the form of a lock which is powered and releasable by the use of a magnetic coded card.

9 A storage container according to claim 1 characterised in that the container (2;102) is provided with a port which allows goods to be inserted into the container without the need for access to be gained into the container.

10 A storage container according to claim 1 characterised in that the container (2;102) is provided in a range of sizes with the appropriate size selected by the recipient of the goods.

11. A storage container according to any of the preceding claims characterised in that the container (2;102) is formed with thermally insulated walls (6;104) and/or lid (10;108) and/or base (8;106), so that the goods can be held in the required condition for a period of time.

12 A container for use in or adjacent a premises for the receipt and storage of goods, said container (2;102) accessible by the person

delivering the goods to the same and the recipient of the goods and characterised in that the container includes cooling means (118,119) which can be used in conjunction with or independently of insulated walls to the container to allow frozen or chilled goods to be stored for a period of time in at least a portion of the container without deterioration to the condition of said goods.

13 A storage container according to claim 12 characterised in that there are provided a number of elements or other cooling system components (118,119) within the walls (6;104) and/or lid (8;106) of the container which provide a cooling or freezing effect on goods within the container.

14 A storage container according to claim 13 characterised in that the cooling components (118,119) are electrically powered and there is provided a power source within or connected (120) to the container.

15 A storage container according to claim 12 characterised in that the container is separated into compartments (110,112) so that only selected compartments are provided with the said freezing or cooling effect components (118,119).

16. A storage container provided for use in or adjacent a premises for the receipt and storage of goods, said container accessible by the person delivering the goods to the same and the recipient of the goods and characterised in that the container has defined therein a

number of compartments (110,112) to allow goods to be kept separate and/or in separate conditions as required.

17 A storage container according to claim 16 for use in which frozen or chilled foodstuffs are kept separately in one compartment (110,112) to other foodstuffs so as to prevent deterioration in the other foodstuffs due to exposure to the chilled or frozen foodstuffs.

18. A storage container according to claim 17 characterised in that one of the compartments (110,112) is provided with cooling or freezing means (118,119) to allow chilled or frozen foods to be stored therein.

19 A storage container according to claim 16 characterised in that the compartments are defined by an inner wall or walls (114).

20 A storage container according to claim 19 characterised in that it is possible for the inner wall or walls (114) which define the compartments to be moved within the container so as to define compartments (110,112) of appropriate size for the use of that container.

21. A storage container according to claim 20 characterised in that the inner wall or walls (114) can be moved between a plurality of defined positions to provide compartments (110,112) of different sizes.

22. A storage container according to any of claims 16-21 characterised in that freezing or chilling components (118,119) in the container can be selectively operated depending on the size of compartments defined by the inner wall or walls (114) at that instant.

23. A storage container according to any of the claims 16-22 characterised in that the lid (10;108) to the container is provided with protrusions which contact with the position of the inner wall or walls (114) so as to form a sealed definition of the compartments when the lid is in position.

24. A storage container according to any of the preceding claims characterised in that the compartment or compartments (110,112) of the container are formed with drainage means to allow the interior of the container to be drained.



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Claims searched: 1 - 11, 24

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Date of search: 29 March 1999

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:
UK CI (Ed.Q): B8P (PL6, PF, PD, PT) E2X
Int CI (Ed.6): A47B 73/00 A47G 29/14, 29/16, 29/18, 29/20, 29/22, 29/24, 29/26, 29/28
Other: ONLINE: WPI, EPODOC, JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2263102 A (K BLACKBURN) Whole document	1 - 3, 9, 10
X	GB2190137 A (EUGENE McSWEENEY) Whole document	1, 2, 5 - 7, 10
X	GB2178006 A (E F BOWYER) Whole document	1 - 4, 7, 9, 10
X	GB2149845 A (L J GRIFFITHS) Whole document	1 - 4, 7, 9, 11, 24
X	GB0637253 (CASE P F and NYMAN P) Whole document in particular page 1 line 78 page 2 line 9	1, 2, 5, 6, 11
X	US4024729 (ABATE, Sr et al) Whole document	1, 2, 5, 6, 11
X	FR 2689221 (CROST ALAIN) in particular the abstract	1, 2, 7, 8

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